# Pedi@uard®

Placing Navigation Back in Your Hands

## **Case Report**

Instrumentating anterolisthesis with spondylolysis and stenosis

Stephen Gutting, M.D.

Board Certified in Neurological Surgery (AANS)

Director St Elizabeth's Neurosurgery, Spine

Boston, Massachusetts

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#### Case / History

68 y/o female presenting with history greater than one year of progressive bilateral leg pain. Patient noted improvement in pain with decreased activity and hyperflexion of the trunk, but worsening of symptoms with ambulation. A vascular etiology was ruled out, and she failed nonsurgical treatment consisting of exercises, NSAID's, and ESI's.

#### **Diagnosis**

MRI imaging showed severe spinal stenosis with an L4-5 anterolisthesis measuring 6 mm with spondylolysis.



#### **Operative Goal**

Decompression of the spinal canal and nerve roots followed by surgical stabilization of L4-5 with pedicle screws and an interbody spacer.

#### **Pre-Operative Assessment**

Due to the right L4 pedicle diameter there was some concern with screw placement, however It was essential to place pedicle screws bilaterally to provide proper biomechanical stability at L4-5. If a pedicle screw was not placed at L4 on the right, the construct would have needed to extended a level to L3.



4mm

#### **Pedicle Preparation Instrumentation: PediGuard®**

Free-hand electronic pedicle preparation instrument requiring no additional equipment or steps. Analyzes tissue at tip of device (cancellous, cortical or soft tissue) and provides audible and visual feedback to surgeon alerting of possible cortical perforations.



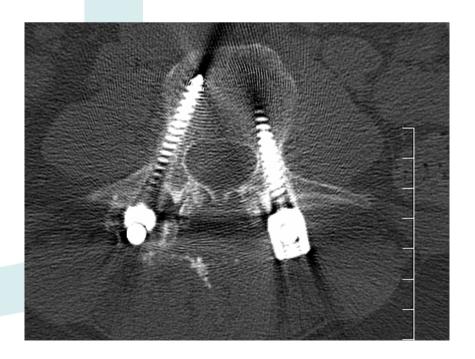


#### **Pedicle Preparation Technique**

After confirming correct placement with an awl on flouro, the PediGuard was positioned to assist with preparing the right L4 pedicle to ensure a medial or lateral cortical breach would not occur. After successful breach free drilling a 5.5 mm screw, was then securely placed.

### **Post-operative Follow-up**

Six weeks postoperatively the patient had no leg or back pain. Post-operative CT imaging shows excellent placement of the pedicle screws.





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#### SpineGuard™ S.A.

5-7, rue de l'Amiral Courbet 94160 Saint-Mandé - France Phone: +33 1 45 18 45 19 Fax: +33 1 45 18 45 20



#### $\textbf{SpineGuard}^{\text{TM}} \ \textbf{Inc.}$

301 Howard Street, Suite 970 San Francisco, CA 94105 - USA Phone: +1 415 512 2500 Fax: +1 415 512 8004

